Public Health Outreach Project Description

Title: Partners in Information Access
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Organization: Health Sciences Library System
                        University of Pittsburgh
Date: October 1998 – June 2000

Objectives:

The goal of this project was to increase public health professionals' awareness of and ability to access, identify, evaluate, and use national, state and local health information resources and services, including those of the National Library of Medicine, Centers for Disease Control and Prevention, the Pennsylvania Department of Health, the National Network of Libraries of Medicine, and the Health Sciences Library System (HSLS) of the University of Pittsburgh.

Specific objectives of the project were to:
1. promote awareness of relevant national and state resources through presentations, exhibits, demonstrations, and hands-on classes;
2. teach identified target populations how to access and search the Internet for reliable and authoritative health information;
3. demonstrate and teach the use of PubMed and Internet Grateful Med to access MEDLINE and other National Library of Medicine and Centers for Disease Control and Prevention databases to the target populations
4. inform target populations about relevant document delivery sources

Target Audiences:

Target populations identified in the original proposal included key staff members from the Pennsylvania Department of Health and the Allegheny County Health Department, and interested members of the Pennsylvania Public Health Association and the Pennsylvania Association of School Nurses and Practitioners.

New target populations identified during the course of the project were the Erie County (PA) Health Department, the Montgomery County (PA) Health Department, and the Pennsylvania Community Provider Association.

Needs assessment (methodology and results):

In late 1998, the opinion leaders from the target populations were contacted to discuss their Internet training needs and the best approach to achieving the goals and objectives of the project.

As project personnel discussed their target populations' Internet training needs, it became evident that all groups had roughly similar levels of knowledge consisting of very basic Internet skills. The Allegheny County Health Department (ACHD) was chosen to become the project's model for developing the curriculum and establishing the best method for providing the training. ACHD's proximity to the University of Pittsburgh, its enthusiastic implementation committee and newly acquired Internet connection, and its assistance in developing and distributing an employee survey to measure computer and information skills, enabled project personnel to partner with this population as a model group. From the survey results and through discussions with the ACHD implementation

committee, HSLS project instructors learned about the role of the public health professional, the variety of workers (nurses, air and water environmental workers, statisticians, physicians, food safety personnel, dieticians, administrators, and public relations specialists). They gained knowledge about the complex information needs of public health workers, and identified the specific resources that would be taught.

From baseline data collected from ACDH and the discussions with the implementation committee, the curriculum was developed to focus on the following areas:
1. How to use a web browser, Netscape Navigator, and Microsoft Internet Explorer;
2. How to locate appropriate public health and government web sites, such as CDC, Toxnet, and MedlinePlus;
3. How to use web directories and search engines;
4. How to use PubMed.

Feedback gathered from initial ACDH training sessions indicated that future sessions should include discussion of resources for air and water environmental personnel, drug addiction specialists, and school nurses. Specific training resource guides were developed to meet this gap.

Intervention:

Workshops* and Exhibits:
   Pennsylvania Department of Health
   - 155 participants trained in 14 workshops in Harrisburg, Bradford, Shippenville, and Titusville, PA
   Allegheny County Health Department
   - 87 participants trained in 12 workshops in Pittsburgh, PA.
   Pennsylvania Public Health Association (PPHA).
   - 5 participants trained in 1 workshop in Pittsburgh, PA.
   - 150 members viewed exhibit at annual meeting
   Pennsylvania Association of School Nurses and Practitioners (PASNAP)
   - 31 participants trained in 1 workshop
   - 210 members viewed exhibit at annual meeting at State College, PA.
   Erie County Health Department
   - 24 participants trained in 2 workshops in Erie, PA.
   Montgomery County Health Department
   - 19 participants trained in 2 workshops in King of Prussia, PA.
   Pennsylvania Community Provider Association (special request)
   - 21 participants trained in 1 workshop in Seven Springs, PA.
* All workshops were hands-on; most lasted 4 hours.

Other Programs:
- Accessing HIV/AIDS Information Resources: A Public Health Training Network Satellite Conference - 30 attendees

Training and other materials developed:

Exhibits were developed for display at annual meetings of the PPHA and PASNAP. Specific training materials, handouts, etc. were developed to be accessible from the Partners home page, described in the section below.

Website (developed as part of project and how maintained):

Project personnel produced the HSLS Partners in Information Access web site to support the curriculum and provide access to relevant sites and resources used in training the target populations. (See www.hsls.pitt.edu/outreach/partners/partners.html). Workshop curricula and handouts, frequently asked questions, specific web based tools (PubMed, CDC Wonder, TOXNET, etc) and links (CDC, PDOH, etc.), tutorials, Loansome Doc registration forms, as well as Web Guides for air and water, school nurses and substance abuse are accessible from this site.

For the duration of the project, project personnel maintained the web site. We have not yet determined to what extent the site will be maintained in the future.

Evaluation (methodology and results):

The evaluation methodology involved three instruments:
- The Pre-Course Questionnaire was given to each participant at the beginning of each workshop. This was used in conjunction with individual discussion to assess use and knowledge of the Internet, browsers, search engines, PubMed, and MEDLINE. 201 Pre-Course Questionnaires were completed.
- A Workshop Evaluation was given to each participant to assess overall perception of the training at the end of each training session. 256 Workshop Evaluations were completed.
- The Internet Training Impact Survey was mailed to each participant three to eleven months after the completion of training. The purpose of this survey was identify whether HSLS Partners in Information Access training increased participants' comfort and ability to use the Internet and whether use of the resources demonstrated was increased. 210 Impact Surveys were returned.

An extensive amount of data has been collected and is still being analyzed. Notable findings from the Pre-Course Questionnaires show that 82% rarely or never used electronic resources to obtain information used in their work, while fewer than 20% had ever used Medline. Though 88% had a computer with Internet access and 65% used the Internet to find work-related information, only 26% rated themselves as having a high level of comfort using Internet resources (a rating of 4 or 5 on a scale of 1-5).

The Workshop Evaluations were very positive with the following percentages of respondents rating the workshop as 4 or 5 on a scale of 1-5:

96%	The workshop gave me a good understanding of PubMed.
89%	The workshop gave me satisfactory knowledge of how to perform a search.
88%	The workshop gave me a good understanding of the WWW.
88%	I understand the types of Public Health or School Nurse resources that are available.
77%	The workshop gave me satisfactory knowledge of how to use a search engine.
69%	I understand how to evaluate quality web resources.
89%	Overall, I am satisfied with what I learned.

The Training Impact Survey was significant in that it measured the long-term impact of training on work-related information-seeking behavior of workshop participants. Preliminary results show that more than 75% of participants indicated increased use of

the Internet for locating health or work related information, with 63% using the web to find information daily or weekly after training, and only 34% doing so before training. Participants also indicated a greater degree of comfort in using the Internet search engines to locate quality health information, and in using specific Internet-based resources as the CDC web site and PubMed,

Poster Sessions/Exhibits/Presentations/Publications:

Poster presentation titled "HSLS Partners in Information Access" presented by C. Wessel at *Partnerships for Health in the New Milennium: Launching Healthy People 2010*, Washington, D.C., January 2000.

C. Wessel and A. Gregg exhibited at the following conference and annual meetings:
Pennsylvania Association of School Nurses and Practitioners, State College, PA.
Pennsylvania Public Health Association, Pittsburgh, PA.

See also Intervention section above.

Partnerships:

See Target Populations section above.

Marketing:

A plan to publicize this project to each target population was developed after consultation with each contact person. A primary mode of marking was through articles in newsletters. Ten newsletter articles were published during the period of the contract.

Administrative issues:

The project was administered through the Health Sciences Library System (HSLS) of the University of Pittsburgh, and all project personnel were HSLS librarians. Project personnel worked with one or more contact persons in each target population.

Challenges Faced:

Because this project was very ambitious in its design and objectives, a variety of challenges were encountered. These fall into four broad categories: administrative, technical, instructional and economic.

Administrative challenges were encountered in dealing with a variety of governmental bureaucracies, particularly one as large as a state department of health. Project personnel spent a great deal of time identifying "champions" and opinion leaders who had sufficient authority to authorize use of agency computing labs, schedule workshops and authorize employees to attend them. Because of high administrative turnover, project personnel were sometimes passed along to multiple individuals before the key contact person was identified.

The technical challenges were formidable. Because the hands-on workshops were offered in locations throughout the state, available facilities varied from state-of-the-art computer labs, to poorly configured rooms with no projection equipment, to labs with filtering software that prevented access to pertinent web resources. One computer lab had a variety of platforms including 10 laptops, 10 computers with 12" monitors and 20 computers with 17" monitors. This created student confusion about using different

keyboards and viewing areas on the monitors. Some labs had different versions of internet browsers such as Netscape and Internet Explorer, creating difficulty in showing newer applications. Many of the resources taught were sufficiently dynamic that instructors would have to change examples on the spot. Project personnel soon found that workshops with over five participants required two instructors, rather than the single instructor that had been planned. This impacted both scheduling and economics.

Instructors found that the long URL for the project's web site and training materials (www.hsls.pitt.edu/outreach/partners/partners.html) required a great deal of effort to explain to workshop participants, who were often unfamiliar with Internet conventions. In retrospect, it would have been advisable to select a shorter, less complicated site address.

Instructional challenges related to offering hands-on training to a diverse group of participants mandated extreme flexibility on the part of project personnel.   It became evident early in the training that many participants were less computer literate than they described themselves in the pre-course evaluation.   Participants' computer skills ranged from never having used a computer, to administrators with no keyboarding expertise, to systems personnel with good technical knowledge but little knowledge about information resources. Though a fair number of participants had Internet access, many were still in the process of learning how to use it. Trainers had also expected participants to have a broader knowledge of the Internet, browsers and Medline. In turn, some participants found the workshops to be complex and overwhelming, and had difficulty absorbing the broad array of information presented. These challenges made it necessary to revise and tailor course materials for nearly every training session.

The economic challenges resulted from the inability and/or unwillingness of public health agencies to support workers in ordering full-text documents through Loansome Doc. Public health departments are under budget constraints or must negotiate complex bureaucratic procedures to increase or allocate funds for new projects. Project funding was not sufficient to subsidize the cost of document delivery for participants. Therefore, though participants found searching Medline through PubMed very useful, they were not able to use the document ordering feature because of the cost.

Were Project Objectives Met?

As indicated in the chart below and in the evaluation section, the project was able to meet or exceed the majority of its objectives. The only area where we fell short was in document delivery: we had projected moderate interest in Loansome Doc as a mechanism to request copies of articles found in Medline, but there were no new Loansome Doc registrants. As described above under "Challenges", this appears to be due to lack of agency funding to pay for interlibrary loan charges. To our knowledge, public health workers do not have other routes to acquire these services.

Deliverables (Actual)	Deliverables (Projected)
34 workshops	35 workshops
371 participants	350 participants
3 conferences exhibits	3 conference exhibits
510 information packets	500 information packets
0 Loansome Doc Registrants	25 Loansome Doc Registrants
10 articles/newsletters published	10 articles/newsletters published

Sustainability:

Informal contacts with the target populations indicate interest in continuing training initiated through this project, though at present funding sources have not been identified.

Barbara Epstein serves on the Advisory Board of the Central Appalachian Public Health Training Center. The Health Resources and Services Administration of the U.S. Department of Health and Human Services recently funded this Center through the Graduate School of Public Health of the University of Pittsburgh. The goal of this center and 7 others around the country is to design a comprehensive training program for public health students and practicing professionals. It is our hope that the type of training offered in HSLS Partners Project will be extended through the activities of this center. HSLS project personnel have been funded to offer training in information resources through the "Public Health 101" symposia offered through GSPH to personnel from the Pennsylvania Department of Health.

Another result of this contract was the inclusion of members of the Pennsylvania Association of School Nurses and Practitioners (PASNAP) as a target population for a subsequent HSLS contract from the RML for Electronic Access to Health Information for the Consumer. The nurses' clearly expressed their need for additional training in how to access and evaluation consumer health information to assist students, teachers and administrators in the educational systems where they are employed. This expression of need led us to include this population in our contract application.

Anecdotes or Other Observations:

None.